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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/198,751	11/24/1998	MASAYUKI HIGUCHI	SEL-100	2901

7590 06/28/2002

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CHICAGO, IL 60606

EXAMINER

TON, MINH TOAN T

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 06/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/198,751

Applicant(s)

HIGUCHI ET AL.

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04-15-02 & 02-16-02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8-31, 34-37, 42-45 and 48-80 is/are pending in the application.
- 4a) Of the above claim(s) 9-15, 36 and 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 16-31, 34, 35, 42-45 and 48-80 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 18.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-6, 16-31, 34-35, 42-45, 48-80 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of copending Application No. 09/197767. Although the conflicting claims are not identical, they are not patentably distinct from each other because both are claiming common subject matter, as

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follows : an embedded conductive layer provided to fill an opening formed in the insulating layer, wherein the conductive layer comprises carbon.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1-6, 16-31, 34-35, 42-45, 48-80 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 09/550598. Although the conflicting claims are not identical, they are not patentably distinct from each other because both are claiming common subject matter, as follows : an embedded conductive layer provided to fill an opening formed in the insulating layer, wherein the conductive layer comprises carbon.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 U.S.C. § 103***

4. Claims 1, 6, 8, 42-45, 48-52, 54-59, 60-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majima et al (US 5592318) in view of Kondo et al (US 5117299).

See Figures 1-4.

Majima discloses the filler comprising aluminum film coated with polyimide resin (i.e., light absorbing insulating material).

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Kondo teaches the use of carbon for shielding yield advantages such as low dielectric constant (no high precision fabrication is required), excellent mechanical strength. Therefore, it would have been obvious to one of ordinary skill in the art to employ carbon for the light absorbing layer (i.e., for shielding) for advantages such as low dielectric constant (no high precision fabrication is required), excellent mechanical strength.

The use of a liquid crystal display in electronic equipments, e.g., portable telephone, video camera, mobile computer, etc., is notoriously known and common in the art for advantages including light weight, low power consumption.

Materials such as organic resin are common and known for an insulating film.

Various switching elements such as TFTs, FETs are known and common in the art.

5. Claims 2-5, 28-31, 34-35, 53, 71-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majima in view of Kondo as applied to claims 1, 6, 8, 42-45, 48-52, 54-59, 60-70 and further in view of Shimada et al (US 5877832)

Shimada shows in Figure 9A pixels having a first electrode 11a and a second metal electrode 40, wherein this arrangement is known to yield advantages including reduction in disconnection.

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Pertaining to the first electrode being a metal layer, a reflective-type LCD device is known to yield advantages over a transmissive-type device including no back light. The conventional reflective-type LCD commonly employs a reflective (metal such as Al, Cr, Ti, Mo, Ta) electrode.

6. Claims 16-17, 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majima in view of Kondo as applied to claims 1, 6, 8, 42-45, 48-52, 54-59, 60-70 and further in view of Misawa et al (US 5250931).

A conventional peripheral driving circuit is generally composed of semiconductor chips such as an integrated circuit (IC). Misawa discloses that such conventional peripheral driving circuit suffers several problems such as low reliability for the connections, high manufacturing costs (col. 1, lines 30-68). Misawa solves the problems through the use of TFTs rather than semiconductor chips for the driving circuit (see col. 2, lines 7-12). Therefore, it would have been obvious to one of ordinary skill in the art to employ TFTs for the driving circuit.

7. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majima in view of Kondo and Misawa as applied to claims 16-17, 22-27, and further in view of Kunii et al (US 5412493).

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Kunii discloses an active matrix LCD device having LDD structure thin film transistors connected in series for achieving advantages such as suppressing leakage current. Therefore, it would have been obvious to one of ordinary skill in the art to employ an LDD structure thin film transistors connected in series for achieving advantages such as suppressing leakage current.

8. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majima in view of Kondo and Misawa as applied to claims 16-17, 22-27, and further in view of Shimada.

See detailed explanations of Shimada above.

***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. TON whose telephone number is (703) 305-3489. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

June 24, 2002

  
**TOANTON**  
**PRIMARY EXAMINER**